No. 200300060

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pennington Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, RED

'Razor'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixth day of February, in the year two thousand and seven.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions* Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
~~Ronnie Stapp~~ c/o Pennington Seeds, Inc.
(BT:8/11/2006)

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
PSC

3. VARIETY NAME
'Razor'
(BT: 9/27/06)

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
~~P. O. Box 290~~ 270 ~~Madison, GA~~ ~~30650~~ Hansard Avenue
Lebanon, OR 97355
(BT:8/11/2006)

5. TELEPHONE *(Include area code)*
~~404-342-1234~~ (541) 451-5261
(BT:8/11/2006)

6. FAX *(Include area code)*
~~404-342-9644~~ (541) 451-5260
(BT:8/11/2006)

FOR OFFICIAL USE ONLY

PVPO NUMBER
200300060

FILING DATE
Dec. 13, 2002

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Delaware

9. DATE OF INCORPORATION
02 - 12 - 1998

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers.)*
~~Ronnie Stapp~~ c/o Pennington Seeds, Inc. ~~P. O. Box 290~~ ~~Madison, GA~~ ~~30650~~ c/o Leon Strait, Field Department Manager
270 Hansard Avenue
Lebanon, OR 97355
(BT:8/11/2006)

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 2705.00
DATE 12/13/02

CERTIFICATION FEE:
$ 768.00
DATE 1/9/2007

11. TELEPHONE *(Include area code)*
(541) 451-5261
~~404-342-1234~~ (BT:8/11/2006)

12. FAX *(Include area code)*
(541) 451-5260
~~404-342-9644~~

13. E-MAIL

14. CROP KIND *(Common Name)*
Spreading ~~Strong Creeping~~ Red Fescue (BT:8/11/'06)

15. GENUS AND SPECIES NAME OF CROP
Festuca rubra rubra

16. FAMILY NAME *(Botanical)*
Poaceae

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☒ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($2,705), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 20 and 21 below)* ☒ NO *(If "no", go to item 22)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO THE NUMBER OF CLASSES? ☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR OTHER COUNTRIES?
☐ YES ☒ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☒ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety will be furnished with applicaiton and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER
Ronnie L Stapp
NAME *(Please print or type)*
Ronnie Stapp c/o Pennington Seed, Inc.
CAPACITY OR TITLE
Executive Vice President
DATE
12/9/02

SIGNATURE OF OWNER
NAME *(Please print or type)*
CAPACITY OR TITLE
DATE

S&T-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0 Replaces STD-470 (04-01) which is obsolete. *(See reverse for instructions and information collection burden statement.)*

Exhibit A:

Origin and Breeding History

'Razor' Spreading
(PSC) ~~Strong Creeping~~ **Red Fescue**
(BT: 9/27/2006)

1. 'Razor' Spreading
(PSC) ~~strong creeping~~ red fescue (*Festuca rubra* L. subsp. *rubra*) (BT: 9/11/2006) is a tuf-type cultivar selected from the progenies of 30 clones.

Ninety-four percent of the harvested plants trace their maternal origin to a plant found in the Rose City Cemetery, Portland, Oregon. This plant contained a Neotyphodium endophyte currently referred to as the Rose City endophyte. Over 98 percent of the parental germplasm of PSC traces its origin to plants selected from old turfs of the United States during the period from 1962 through 1980 by turfgrass scientists at the New Jersey Agricultural Experiment Station. A plant selected from Pernille and a few plants selected from Ensylva were also included as parental ancestors. Plants selected from old turfs were subjected to evaluation in spaced-plant nurseries, frequently mowed turf trials, and greenhouse test for resistance to powdery mildew (caused by *Erysiphe gramminis* DC). Progenies from intercrossing the best performing selections were than subjected to many cycles of recurrent phenotypic selection with each cycle followed by single-plot progeny tests in closely mowed turf trials. Tillers were subsequently selected from the best performing turf plots to initiate additional cycles of selection. Greenhouse facilities were also used to select disease resistant, lower-growing plants with abundant tillers, and a rich, bright, dark green color.

Single-plot progenies of 707 clones selected form the Rutgers turfgrass breeding program were seeded in individual turf plots at North Brunswick and Adelphia New Jersey during the late summers of 1992 and 1993. A total of 1,020 plants were selected from the best performing progenies following a period of summer stress in August, 1994. Selection was based on turf performance and appearance of the plots at the time of selection. Selected plants were established in greenhouse flats prior to their transfer to an isolated spaced-plant nursery in September, 1994. Two nurseries consisting of 1,020 plants total were established in the spring of 1995 from the same best performing turf plants as above. Fourteen plots were selected from the 1993 test and three plots were selected from the 1992 test. Plants were selected from these nurseries prior to anthesis and moved to isolated crossing blocks in 1996. Plants were selected for low growth habit, fine leaf texture and dark green color in one block and medium green color in another block. Seed harvested from these plants was germinated and screened for dark-green color, low growth habit and high shoot density, approximately seventy-five percent of the plants were discarded. The remaining 3,540 plants were used to

establish a mowed spaced-plant evaluation trial. Fifty-two plants named 'FLT' were cycled again for low growth habit, fine leaf texture and dark green color prior to the establishment of a spaced-plant nursery in the spring of 1998 containing 2,040 plants from those fifty-two progenies. Thirty-seven plants were selected from this nursery prior to anthesis for bright dark green color, high shoot density, prostrate-low growth habit, early uniform maturity and freedom from disease. These plants were moved to an isolated crossing block in the spring of 1999. Thirty plants from four different lines were harvested from the crossing block based on high seed yield, good floret fertility and freedom from disease. One turf plot of each line was established in Adelphia in the fall of 1999.

In the fall of 1999 a seed increase block containing 60 plants of 30 progeny lines (1,800 plants) was established in Albany, Oregon. In 1999 negative mass selection was used and 1.61 % of the plants were rogued from the population. The remaining plants were harvested in bulk and the seed was used to establish a morphological nursery for Plant Variety Protection (PVP) measurements.

2. Breeder Seed Maintenance:

A breeder seed multiplication was planted in isolation in 1999 in Albany, Oregon. Seed was harvested in bulk in 2000 and is maintained in cold storage. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

3. Stability and Uniformity:

'Razor' <PSC has been a stable uniform cultivar over 2 generations. No off-type or variant plants have been observed during the multiplication or reproduction. During the breeder seed multiplication 1.61 % of the plants were removed. These types were not observed during the subsequent generations. Turf plots of 'Razor' PSC have been uniform and stable.

(ET: 9/27/2006)

(ET: 9/27/2006)

200300060

Addendum to Exhibit A for Razor (<PSC>)

'Razor'

(BT:9/27/06) <PSC>has been a stable and uniform cultivar over two generations. No off-type or variant plants have been observed during the multiplication or reproduction. During the breeder seed multiplication plants were removed to improve the uniformity of the population. The plants that were removed showed less vigor and had poor plant health. It is not known if the lack of vigor was due to environmental factors, genetic factors, or an environmental by genetic interaction. These types were not observed during the subsequent generations. Turf plots of<PSC>have been uniform and stable.

Exhibit B:

Novelty Statement of <PSC> 'Razor' Spreading (BT: 9/27/2006) ~~Strong Creeping~~ Red Fescue

The following summary outlines the distinctive characteristics of <PSC> 'Razor' (BT: 9/27/2006). The novelty of PSC is based on the unique combination of these characteristics. PSC is most similar to Pennlawn, but may be differentiated by using the following criteria:

1) The heading date and anthesis date of <PSC> 'Razor' (BT: 9/27/2006) is earlier than Pennlawn (tables 1A, 1B).

2) PSC has a darker genetic color than Pennlawn (tables 1A, 1B).

3) The flag leaf morphological characteristics; height, length, sheath length, and internode length of PSC are significantly shorter compared to Pennlawn (tables 1A, 1B).

4) The leaf blade characteristics; length, height, and sheath length of PSC are shorter than Pennlawn (tables 1A, 1B).

5) PSC has a longer lemma length compared to Pennlawn (tables 2A, 2B).

6) PSC has a reduced awn length compared to Pennlawn (tables 2A, 2B)

7) The length of the spikelet for PSC is longer compared to Pennlawn (tables 2A, 2B).

8) PSC expresses a higher frequency of plants with an erect growth habit compared to Pennlawn (tables 3A, 3B).

9) PSC exhibits more plants with yellow pigmentation in the anthers compared to Pennlawn (tables 3A, 3B).

10) The red pigmentation of the panicles is expressed at a lower level in <PSC> 'Razor' (BT: 9/27/2006) compared to Pennlawn (tables 3A, 3B).

FORM APPROVED: OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURE MARKETING SERVICE
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Fine Leaved Fescues)

OBJECTIVE DESCRIPTION OF VARIETY
FINE LEAVED FESCUES
(Festuca spp.)

200300060

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
(BT: 8/11/06) ~~Pennie Stapp c/o~~ Pennington Seeds, Inc.	PSC	'Razor' (BT: 9/27/2006)

ADDRESS *(Street and No. or R.F.D. No., City, State, Zip Code)*
P. O. Box 290
1280 Atlanta Hwy.
Madison, GA 30650

FOR OFFICIAL USE ONLY
PVPO NUMBER 200300060

Place the appropriate number that describes the varietal character of this variety in the boxes below. Use leading zeroes when necessary: (e.g., 0 8 or 0 9). Characteristics described including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticulture Society or any recognized color fan may be used to determine plant colors; designate system used: _____

Describe location of test area, conditions and number of plants used: See section 16, page 4.

1. SPECIES: (With comparison varieties for use below - use varieties within species of application variety)

____	1 = *F. rubra ssp. commutata* (Chewings)	11 = Cascade 14 = Banner	12 = Highlight 15 = Barfalla	13 = Jamestown
____	2 = *F. rubra ssp. litoralis* (Creeping Red)	21 = Dawson 24 = Pennlawn	22 = Starlight	23 = Merlin
24	3 = *F. rubra ssp rubra* (Spreading Red)	31 = Boreal 34 = Ensylva		
____	4 = *F. ovina* (Sheep)	41 = Covar		
____	5 = *F. longifolia* (Hard)	51 = Durar	52 = Biljart (C-26)	53 = Scaldis
____	6 = *F. tenuifolia* (Fine-Leaved Sheep)	61 = Panda	62 = Barok	
____	7 = Other *(Specify)* F. _____			

2. CYTOLOGY:
5 | 6 Chromosome Number 4 Ploidy 1 = diploid 2 = tetraploid 3 = hexaploid 4 = octoploid

3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)
2 Northeast 0 Southeast 0 North Central 2 Pacific N.W. ____ Other *(Specify)* _____

4. MATURITY: Date First Headed (panicle emergence) Location(s) of Trial(s) _____
2 Maturity Class:
1 = Very Early (Covar) 2 = Early (Highlight) 3 = Medium Early (Boreal, Dawson)
4 = Medium Late (Cascade, Ruby) 5 = Late (Jamestown, Agram) 6 = Very Late

Date Headed 17. 00 days after March 1.

11. 67	Days earlier than	24	Comparison Variety
|	Maturity same as	|	
|	Days later than	|	

5. Plant Height: (At maturity; to top of panicle; Average of 10 culms)

791. 30	mm height		
| |	mm shorter than	|	Comparison Variety
	Height same as	24	
| |	mm taller than	|	

6. GROWTH HABIT: (Mature)
2 1 = Erect (Ruby) 2 = Semi-erect (Highlight) 3 = Prostrate (Silvana)

7. RHIZOMES:
\| \| mm Length \| \| mm Width \| \| mm Internode length
2 1 = Absent (Highlight) 2 = Weakly Creeping (Dawson) 3 = Strongly Creeping (Boreal)
4 = Very Strongly Creeping (Fortress)

8. LEAF BLADE:

4 Color: 1 = Light Green (Strarlight) 2 = Medium Light Green (Highlight) 3 = Medium Dark Green (Ruby, Agram) 4 = Dark Green (Jamestown, Manoir) 5 = Bluegreen (Saphir) 6 = Graygreen (Scaldis) 7 = Other (*Specify*) _____

1 Glaucosity (Sowing Year): 1 = Absent (Koket) 2 = Present (Vendrome)

1 Anthocyanin: 1 = Absent 2 = Present 2 (5%) Hairs (Basal) 1 = Absent 2 = Present

1 Margins: 1 = Smooth 2 = Semi-rough 3 = Rough

1 Margin folding (closure): 1 = Rolled inward (closed-Highlight) 2 = Flat (open-Jamestown, Engina)

3 Width class: 1 = Very Fine (Agram, Frida) 2 = Fine (Jamestown, Highlight, Banner, Dawson) 3 = Medium Fine (Fortress, Ruby, Scaldis) 4 = Medium Coarse (Engina)

267.30 mm Length (flag leaf)

33.40 mm Shorter than 24

Blade length same as . . . . . |

| mm Longer than . . . . . | } Comparison Variety

3.67 mm Width (flag leaf)

▲| mm Narrower than . . . . . |

Blade width same as 24

▲| mm Wider than . . . . . | } Comparison Variety

9. LEAF SHEATH:

____ Anthocyanin (seedling): 1 = Absent (Highlight) 2 = Present (Jamestown, Fortress, Marga)

2 Auricle Hairiness: 1 = Absent 2 = Present

1 Margins: 1 = Open (Highlight) 2 = Closed (Jamestown)

10. PANICLE (Mature plant):

2 Shape: 1 = Narrow-tapering 2 = Ovate 3 = Oblong 4 = Other (*Specify*) _____

1 Type: 1 = Open 2 = Intermediate 3 = Compact

1 Orientation: 1 = Erect 2 = Nodding

1 Branch Pubescence: 1 = Glabrous 2 = Pubescent

1 Anther Color:

1 Glume Color (At 50% flowering): } 1 = Yellowish Green 2 = Green 3 = Bluish Green 4 = Purplish 5 = Reddish 6 = Other (*Specify*) _____

471.00 mm Length

| mm Shorter than . . . . . |

Panicle length same as 24

| mm Longer than . . . . . | } Comparison Variety

11. PALEA:

2 Hairs (On keels or margins): 1 = Absent (Banner) 2 = (Agram, Scaldis, Olds) 3 = Long (Ranier, Fortress, Jamestown)

12. LEMMA (Mature):

2 Hairs: 1 = Absent (Jamestown) 2 = Several 3 = Many (Highlight)

5.63 mm Lemma Length

	mm Shorter than	
	Lemma length same as	Comparison Variety
0.50	mm Longer than	24

1.20 mm Lemma Width

	mm Narrower than	
	Lemma width same as 24	Comparison Variety
	mm Wider than	

2 Awns: 1 = Absent 2 = Present

2.20 mm Awn Length

0.40	mm Shorter than 24	
	Awn length same as	Comparison Variety
	mm Longer than	

13. SEED (With lemma & palea):

4 Size Class (g/1000 seed):
1 = <.9g (Biljart, Dawson) 2 = .91-< 1.1g (Jamestown, Highlight)
3 = 1.1 - 1.3 g (Fortress, Novorubra) 4 = > 1.3g (Boreal, Golfrood)

1,590.00 mg per 1000 seed

	mg per 1000 seed less than	
	Seed Weight same as	Comparison Variety
662.00	mg per 1000 more than 24	

14. DISEASE, INSECT, AND NEMATODE REACTION (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

0	Melting-out *Drechslera poae* (*Helminthosporium vagans*)	0	Stripe rust *P. striiformis*
0	Leaf spot *D. siccans*	0	Leaf rust *P. poae-nemoralis*
0	Net blotch *D.* dictyoides	0	*P. crandalli*
0	Leaf spot *Bipolaris sorkiniana*	0	Pythium Blight *Pythium ultimum*
0	Brown patch *Rhizoctonia solani*	0	Red thread *Corticum fusciforme*
0	Powdery Mildew *Erysiphe graminis*	0	Dollar spot *Sclerotinia homoeocarpa*
0	Stripe smut *Ustilago striiformis*	0	Insect _____
0	F. Patch, Pink snow-mold *Fusarium nivale*	0	Nematode _____
0	Fusarium blight *F. tricinctum, F. roseum*	0	Other _____
0	Gray snow mold *Typhula iotana*	0	Other _____
0	Stem rust *Puccinia graminis*	0	Other _____

15. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics indicate Degree of Resemblance by placing the column marked, D. R., 1 of the following numbers:

1 = Application variety is less than comparison variety. 2 = Same As
3 = More than, better, greater, darker, more disease resistant, etc.

CHARACTER	VARIETY	D. R.	CHARACTER	VARIETY	D.R.
Rhizome Length	Pennlawn	2	Growth Habit	Pennlawn	3
Leaf Width	Pennlawn	2	Leaf Color	Pennlawn	3
Panicle Color	Pennlawn	3	Panicle Shape	Pennlawn	3
Winter Color	Pennlawn	2	Cold Injury	Pennlawn	2
Shade Tolerance	Pennlawn	2	Heat	Pennlawn	2
Drought	Pennlawn	2	Disease*	Pennlawn	2

** Specify each disease evaluated.*

16. ADDITIONAL DESCRIPTION: (Use additional sheets as required)
Describe all characteristics that cannot be adequately described in the form above in Exhibit D. Comparative varieties should be used as may be appropriate, such as for disease. Append all comparative trial and evaluation data, including measured characters, environmental, and disease test.

A morphological nursery designated 00PVPFRR was established in September 2000, in Albany, Oregon. Experimental design consisted of 3 entries; 3 replications per entry; 20 plants per replication; for a total of 60 plants per entry. Pennlawn was used as a standard. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nursery received 30 pounds of nitrogen per acre rate following establishment and 50 pounds of nitrogen per acre per year in 2001 and 2002. The fertilizer source was 15 - 15 - 15 and was applied as a split application with ½ applied in the spring and ½ in the autumn. The nursery was sprayed twice each spring, 3 weeks between applications, with Tilt (2oz/acre rate), to prevent stem rust. One pound of Karmex per acre rate was applied during the late summer to prevent emergence of volunteer seedlings.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed.

Exhibit D:

Additional Description

'Razor' PSC Strong Creeping Red Fescue (ST: 10/26/2006)

(ST: 10/25/2006) 'Razor' PSC has improved characteristics over current cultivars, such as Pennlawn. PSC has a darker genetic color compared to Pennlawn (tables 1A, 1B). It has an early maturity, with a heading date and anthesis date earlier than Pennlawn (tables 1A, 1B). PSC has a longer spikelet than Pennlawn (tables 2A, 2B). There are a reduced number of spikelets on the longest whorl of PSC compared to Pennlawn (tables 2A, 2B, illus. 1). PSC also has fewer spikelets per panicle than Pennlawn (tables 2A, 2B).

'Razor' PSC may be differentiated from Pennlawn on several visual characteristics. The growth (ST: 10/26/2006) habit of PSC express a higher frequency of erect type plants compared to Pennlawn (tables 3A, 3B). PSC exhibits more plants with yellow pigmentation in the anthers compared to Pennlawn (tables 3A, 3B). The red pigmentation of the panicle is expressed at a lower frequency in PSC than Pennlawn (tables 3A, 3B). PSC has a more compact panicle type in the second year compared to Pennlawn (tables 3A, 3B). PSC has fewer leaf blade margin hairs than Pennlawn (tables 4A, 4B). Pennlawn expresses a higher frequency of brown pigmentation in the nodes compared to PSC (tables 4A, 4B). PSC produces fewer plants with purple pigment in the glume than Pennlawn (tables 4A, 4B). PSC produces more rhizomes than Pennlawn (tables 4A, 4B). Pennlawn expresses a higher frequency of plants with leaf blade surface hairs (tables 5A, 5B). PSC has a higher seed weight than Pennlawn (tables 5A, 5B).

Panicle Type Inflorescence

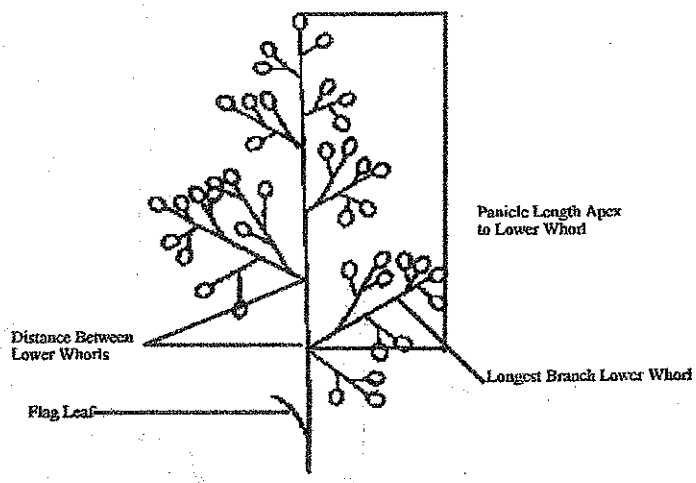

Illustration 1.

Table 1A 2001 Morphological Data

Cultivar	Heading Date (days after March 1)	Anthesis Date (days after March 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (mm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (mm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
(BT:9/27/06) 'Razor' <PSC>	17.00	54.00	5.00	53.90	12.53	47.10	16.80	3.00	17.43	10.50	6.60	11.47	3.00	6.63	5.50
DW1	22.33	55.67	5.67	49.83	11.97	44.10	17.03	3.33	16.63	10.77	5.37	12.40	3.33	6.00	5.70
Pennlawn	28.67	57.33	3.00	67.13	14.93	55.40*	23.17	3.00	26.30	14.70	11.30	16.20	2.67	9.10	8.20
LSD 5%	2.56	1.42	0.58	3.72	2.52	2.75	1.20	0.58	1.38	0.98	1.38	1.64	0.71	1.56	0.87
C.V.	5.97	1.47	7.32	3.75	11.00	3.23	3.64	10.71	3.95	4.71	10.22	7.04	13.61	12.34	7.73

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.
■ Significant difference over two years one location.
■ Significant difference over one year one location.

Table 1B 2002 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (mm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (mm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
(BT:9/27/2006) 'Razor' <PSC>	29.33	52.33	5.00	79.13	29.27	63.03	26.73	3.67	31.63	15.13	13.17	21.17	3.33	13.43	9.93
DW1	36.67	54.67	5.67	69.97	27.33	57.60	26.03	3.67	26.90	14.80	10.73	20.70	3.00	10.97	9.73
Pennlawn	53.00	61.67	4.00	80.83	28.47	58.23*	30.07	3.00	40.50	17.83	16.63	23.97	3.00	18.37	11.80
(BT:8/11/2006) LSD(0.05)	4.87	3.07	0.58	4.08	2.34	2.62	2.31	0.92	1.78	1.27	1.10	2.04	0.58	0.98	0.75
C.V.	7.06	3.14	6.82	3.06	4.75	2.53	4.80	15.30	3.10	4.58	4.70	5.35	10.71	3.96	4.13

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.
■ Significant difference over two years one location.
■ Significant difference over one year one location.

Table 2A

2001 Laboratory Morphological Data

Cultivar	Lemma Length (mm)	Lemma Width (mm)	Lemma Awn Length (mm)	Glume Length (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl	Spikelets per Panicle	Length of Panicle From Lower Most Whorl to Tip (mm)
'Razor' <PSC>	5.63	1.20	2.20	4.97	7.33	14.43	66.40	37.33	6.67	37.00	122.43
DW1	5.10	1.23	2.10	4.57	7.67	13.33	65.33	36.07	6.67	38.00	118.00
Pennlawn	5.13	1.07	2.70	5.20	8.00	13.47	73.03	42.90	11.33	52.33	138.43
LSD(0.05)	0.17	0.10	0.20	0.38	1.42	0.71	5.90	5.46	1.16	5.76	13.72
C.V.	1.84	4.95	4.95	4.45	10.65	2.98	4.96	8.09	8.11	7.79	6.24

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.
■ Significant difference over two years one location.
■ Significant difference over one year one location.

Table 2B

2002 Laboratory Morphological Data

Cultivar	Lemma Length (mm)	Lemma Width (mm)	Lemma Awn Length (mm)	Glume Length (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl	Spikelets per Panicle	Length of Panicle From Lower Most Whorl to Tip (mm)
'Razor' <PSC>	5.97	1.03	1.77	4.63	6.33	12.30	66.43	36.40	7.00	40.67	135.47
DW1	5.77	1.00	1.73	4.47	6.00	11.43	65.17	35.07	7.33	41.00	127.53
Pennlawn	5.33	0.97	2.17	4.47	6.00	11.03	67.13	37.87	11.67	65.33	141.67
LSD(0.05)	0.23	0.10	0.17	0.25	0.58	0.49	5.75	2.96	1.88	7.91	14.14
C.V.	2.34	5.77	5.14	3.21	5.45	2.43	4.99	4.66	12.46	9.28	6.02

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.
■ Significant difference over two years one location.
■ Significant difference over one year one location.

Table 3A

2001 Additional Morphological Measurements of the Panicle

Cultivar	Growth Habit at Anthesis % Erect	Growth Habit at Anthesis % Semi-Erect	Growth Habit at Anthesis % Prostrate	Anther Color % Yellow	Anther Color % Purple	Panicle Color % Red	Panicle Orientation % Nodding	Panicle Shape % Narrow	Panicle Type % Open	Branch Lower Whorl =1	Branch Lower Whorl =2	Branch Lower Whorl =3	Panicle Branch Pubescence % Pubescent
'Razor' <PSC> (BT:9/27/06)	50	45	5	93	7	30	8	32	68	8	88	3	0
DW1	45	38	17	85	15	50	0	20	80	7	85	8	0
Pennlawn	5	62	33	12	88	95	5	25	75	10	90	0	35

Measurements taken in Albany, Oregon
3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

Table 3B

2002Additional Morphological Measurements of the Panicle

Cultivar	Growth Habit at Anthesis % Erect	Growth Habit at Anthesis % Semi-Erect	Growth Habit at Anthesis % Prostrate	Anther Color % Yellow	Anther Color % Purple	Panicle Color % Red	Panicle Orientation % Nodding	Panicle Shape % Narrow	Panicle Type % Open	Branch Lower Whorl =1	Branch Lower Whorl =2	Branch Lower Whorl =3	Panicle Branch Pubescence % Pubescent
'Razor' <PSC> (BT:9/27/06)	42	58	0	97	3	40	25	75	25	10	88	2	2
DW1	43	57	0	92	8	58	8	48	52	12	88	0	2
Pennlawn	0	58	42	43	57	97	8	43	57	10	87	3	30

Measurements taken in Albany, Oregon
3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

20030060

Table 4A

2001 Additional Morphological Measurements of the Leaf Blade and Seed

Cultivar	Leaf Blade Margin Roughness to the Touch % Smooth	Leaf Blade Margin Roughness to the Touch % Semi-Rough	Leaf Blade Margin Roughness to the Touch % Rough	Leaf Blade Margin Hairs % Present	Leaf Sheath Auricle Hairs % Present	Node Color % Distinct	Lemma Hairs % Present	Palea Hairs % Present	Glume Color % Purple	Rhizomes % Present
'Razor' PSC (BT:9/24/06)	97	3	0	45	7	38	67	98	22	28
DW1	85	13	2	48	13	38	73	98	17	17
Pennlawn	78	20	2	58	12	72	58	87	42	2

Measurements taken in Albany, Oregon
3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

Table 4B

2002 Additional Morphological Measurements of the Leaf Blade and Seed

Cultivar	Leaf Blade Margin Roughness to the Touch % Smooth	Leaf Blade Margin Roughness to the Touch % Semi-Rough	Leaf Blade Margin Roughness to the Touch % Rough	Leaf Blade Margin Hairs % Present	Leaf Sheath Auricle Hairs % Present	Node Color % Distinct	Lemma Hairs % Present	Palea Hairs % Present	Glume Color % Purple	Rhizomes % Present
'Razor' PSC (BT:9/24/06)	78	18	3	7	7	38	83	87	35	20
DW1	75	25	0	0	0	27	80	80	42	60
Pennlawn	72	28	0	47	7	83	78	80	60	0

Measurements taken in Albany, Oregon
3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

(BT:9/27/06)

Table 5A 2001 Additional Morphological Measurements

Cultivar	Leaf Blade Anthocyanin % Purple	Leaf Sheath Surface Hairs % Glaborous	Leaf Blade Margin Folding % Closed	Leaf Sheath Collar Hairs % Glaborous	Leaf Sheath Margins % Open	Lemma Awns % Present	Leaf Blade Surface Hairs % Present	Seed Weight mg per 1,000 Seeds
"Razor" PSC	0	97	65	97	100	100	0	1590
DW1	0	95	68	95	100	100	0	1408
Pennlawn	0	83	68	87	100	100	22	928

Measurements taken in Albany, Oregon
3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

Table 5B 2002 Additional Morphological Measurements

Cultivar	Leaf Blade Anthocyanin % Purple	Leaf Sheath Surface Hairs % Glaborous	Leaf Blade Margin Folding % Closed	Leaf Sheath Collar Hairs % Glaborous	Leaf Sheath Margins % Open	Lemma Awns % Present	Leaf Blade Surface Hairs % Present	Seed Weight mg per 1,000 Seeds
"Razor" PSC	0	90	98	95	100	100	0	1592
DW1	0	87	98	97	98	100	0	1430
Pennlawn	0	83	98	85	100	100	10	906

(BT:9/27/06)

Measurements taken in Albany, Oregon
3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

REPRODUCE LOCALLY. Include form number and edition date on all reproductions. FORM APPROVED - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued (*7 U.S.C. 2421*). The information is held confidential until the certificate is issued (*7 U.S.C. 2426*).

1. NAME OF APPLICANT(S)

(BT:8/11/06) ~~Ronnie Stapp~~ c/o Pennington Seeds, Inc

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER PSC

3. VARIETY NAME

'Razor' (BT: 9/27/2006)

4. ADDRESS (*Street and No., or R.F.D. No., City, State, and Zip, and Country*)

~~P. O. Box 290 Madison, GA 30650~~ 270 Hansard Avenue Lebanon, OR 97355

(BT:8/11/'06)

5. TELEPHONE (*Include area code*)

~~404-342-1234~~ (541) 451-5261 (BT:8/11/'06)

6. FAX (*Include area code*)

~~404-342-3644~~ (541) 451-5360 (BT:8/11/'06)

7. PVPO NUMBER 200300060

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.**

☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.**

☒ YES ☐ NO

10. Is the applicant the original owner? **If no, please answer one of the following:**

☒ YES ☐ NO

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☒ YES ☐ NO **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☒ YES ☐ NO **If no, give name of country**

11. Additional explanation on ownership *(If needed, use the reverse for extra space)*:

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.